

SAN ANTONIO WATER SYSTEM
Interdepartment Correspondence Sheet

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To: Zoning Commission Members

From: Kirk M. Nixon, Manager, Resource Protection Division, San Antonio Water System

Copies To: Scott R. Halty, Director, Resource Protection & Compliance Department, Mike Barr, Environmental Protection Specialist III, Aquifer Protection & Evaluation Section, File

Subject: Zoning Case Z2009076 (Steubing Ranch)

Date: June 11, 2009

SUMMARY

A request for a change in zoning has been made for an approximate 389.53-acre tract located on the city's north side. A change in zoning from **NP-10 ERZD** to **MPCD ERZD** is being requested by the applicant, Brown & Ortiz, P.C. Attorneys at Law. The change in zoning has been requested to allow for a master planned development that includes residential, commercial, multi-family, and open space. The property is classified as Category 2 property.

Based on the site evaluation of the property, and the information submitted by the applicant, SAWS staff recommends **approval** of the proposed land use. Should the City Council rezone the property that is the subject of this report, the San Antonio Water System recommends that any development on that property after the zoning classification has been changed should be restricted as stated in the environmental recommendations section of this report.

LOCATION

The subject property is located in City Council District 9, near the intersection of U.S. Hwy 281 and north of Sonterra Blvd. The property lies within the Edwards Aquifer Recharge Zone (Figures 1 and 2).

SITE EVALUATION

1. Development Description:

The proposed change is from NP-10 ERZD to MPCD ERZD and will allow for the construction of a master planned community. Currently the site is undeveloped and covered in native vegetation.

2. Surrounding Land Uses:

Residential development surrounds the tract to the north, west, and east. This includes Champion Springs, The Glen at Stone Oak, The Hills of Stone Oak, Stone Creek, Iron Mountain Ranch, and Quarry at Iron Mountain Subdivisions. The tract is bound on the east by undeveloped land and an active quarry.

3. Water Pollution Abatement Plan:

As of the date of this report, a WPAP has not been submitted to the Texas Commission on Environmental Quality (TCEQ). A WPAP will be required to be submitted to and approved by the TCEQ prior to the commencement of construction.

4. Geologic Conditions:

The Resource Protection and Compliance Department of the San Antonio Water System performed a review of the subject property on April 15, 2009. Because of the size of the property, the geologic assessment performed by Pape-Dawson was also used to evaluate the property.

- A. The Steubing Ranch is a family homestead for a ranching operation. There is a residence located at the entrance at the southeast corner of the lot and is within a hundred yards of a family cemetery. There is one other household residence located in the central portion of the property. The property appears to have had clearing performed for the ranching operation.

The site is characterized by small hills located on the north side of the property and the southwest boundary of the subject site. The eastern half of the property is bounded by Mud Creek and a small tributary extends into the central portion of the property. Stormwater runoff flows generally to both tributaries of the Mud Creek and flows to the southeast.

- B. The entire property is represented by the lower half of the Edwards Group. The three members shown are the Grainstone Member, the Kirschberg Evaporite, and the Dolomitic Member which make up the Kainer Formation.

The Grainstone Member is a white marine deposited limestone either a grainstone or mudstone that has undergone a recrystallization process. The recrystallization tends to reduce the amount of pore space and the permeability of the rock making it relatively less sensitive to water movement through it and less vulnerable to contamination. The thickness of the member is generally 50-60 feet.

The Kirschberg Evaporite is a marine deposited mudstone that has undergone crystallization. It contains both gypsum and anhydrite, minerals which tend to dissolve more readily creating pore space and forming some avenues for water migration within the member in the Edwards Aquifer. However, Bexar County tends to have less of these minerals than in other areas. Generally, the Kirschberg Evaporite is 50-60 feet thick.

The Dolomitic Member is a marine deposited fine grained limestone, either a mudstone or a grainstone. In terms of pore space, the Dolomitic Member relative to the other members is a moderate to low in terms of its susceptibility to the solution process. Porosity and permeability tend to form along bedding planes and structural features such as fractures and faults. The Dolomitic Member is massive and can appear very jagged when eroded. The Dolomitic Member is approximately 110 to 130 feet thick.

- C. Structurally, the Steubing Ranch site is bisected by a fault that extends from the southwest section of the property to the northeast corner of the property. Additionally, a second fault runs generally parallel to the northern boundary of the property in the same direction as the first fault. This is consistent with the predominant direction of faults mapped in the Balcones Fault Zone. The area of the fault bisecting the property, where observed did not appear to be highly sensitive due to its soil filled nature.
- D. Two solution cavities and a small sinkhole were observed on the subject property. The first solution cavity was a vertical shaft with an opening of approximately one foot in diameter and had a depth of fifteen feet. The lack of soil in the feature exhibited the ability for water to infiltrate rapidly. This feature was located on a hillside with close proximity to the central tributary of Mud Creek.

The second solution cavity was a smaller feature generally a foot to foot and a half wide opening and approximately two feet deep. The location of the feature is in a streambed and was also observed to have little soil in the build-up therefore having the potential for rapid infiltration.

The third feature is a sinkhole which is approximately 14 feet in diameter and two feet deep. The feature is located on a hillside. It is also believed to have the potential for rapid infiltration of water.

All three features will be preserved as part of the master plan.

Three water wells were located on the property. All three were observed to be in operation for the current residences on site.

ENVIRONMENTAL CONCERNS

The environmental concerns associated with this development being constructed on the Edwards Aquifer Recharge Zone are:

Site Specific Concerns

1. Several sensitive geologic features are located on the property and there is potential for contamination of the Edwards Aquifer.
2. Three wells were observed on the site and they are currently in operation.
3. A portion of the property lies within Mud Creek, along the eastern and southern portion, where recharge may occur.
4. MPCD Zoning allows for certain industrial land uses that are not allowed over the recharge zone. According to the applicant the land use will be single-family, multi-family, and commercial.

General Concerns

1. The improper use of pesticides, herbicides, or fertilizers needed for landscape maintenance that may be carried off in the first flush of stormwater run-off.
2. The build-up of hydrocarbons and other pollutants on streets, parking lots and other paved areas that are then carried off in the first flush of stormwater run-off.

ENVIRONMENTAL RECOMMENDATIONS

The following recommendations address the environmental concerns raised by the construction of this development on the Edwards Aquifer Recharge Zone:

Site Specific Recommendations

1. The impervious cover for the overall tract has been included in the exhibit for the Steubing Ranch Master Development Plan (MDP) (attachment 3). The impervious cover ranges from 0% for the green space areas to 95% for commercial areas along roadways and intersections and utilizes cluster development concepts to increase natural area protection. The overall

impervious cover for the entire 651.30 acre master plan is 43.20%. The Master Planned Community District (MPCD) includes 389.53 acres (attachment 4). The impervious cover shall not exceed 43.20% for the overall MDP site.

2. A buffer shall be provided for the three sensitive geologic features that are located on site that include geologic feature S-104 (solution cavity), S-107 (sinkhole), and S-110 (solution cavity).
3. The wells, along with any additional wells that may be located on the site must be properly plugged if need be according to the City Code Chapter 34, Division 2 Section 574 by a registered well driller.
4. A floodplain buffer shall be provided along the portions of the property that bound the creeks and drainage areas as required in Ordinance No. 81491, Section 34-913.
5. Land uses that require an industrial designation, per the permitted use table shall not be allowed on the project site.
6. The land uses within the zoned areas shall be in conformance with the table of permitted uses at the time the re-zoning is approved. Should a proposed use be listed as requiring City Council approval, the owner/operator shall apply for re-zoning for that particular use at that site. If the land use is listed as special use, a special permit must be obtained for that use. If the land use is listed as prohibited, that land use will not be permitted on that site.
7. The owner of all water pollution abatement structures shall be responsible for properly maintaining the basin and that it is kept free of trash and debris. A signed water quality maintenance plan must be submitted to the Resource Protection Division of SAWS. If at any time the ownership of the property changes, the seller must disclose to the buyer all the requirements of the water quality maintenance plan. The new owner must submit a signed water quality maintenance plan to the Resource Protection Division of SAWS.
8. Landscaped areas shall be sensitive to minimizing water needs, i.e., use of native plants. Each purchaser of an individual lot or tenant within this development shall be informed by the seller or lessor in writing about Best Management Practices (BMP) for pesticide and fertilizer application. Preventing Groundwater Pollution, A Practical Guide to Pest Control, available from the Edwards Aquifer Authority (210/222-2204), or equivalent information produced by the U.S. Natural Resource Conservation Service, Texas Department of Agriculture, U.S.D.A, shall be used.
9. The applicant shall notify the Construction Compliance Section of the Resource Compliance Division of SAWS at (210) 233-3564 no later than 48 hours prior to the commencement of

construction at the site. If any significant geologic features such as, but not limited to, solution openings, caves, sinkholes, or wells are found during the excavation, construction, or blasting, the developer shall notify the Texas Commission on Environmental Quality at (210) 490-3096 and the Resource Protection Division of the SAWS at (210) 233-3526.

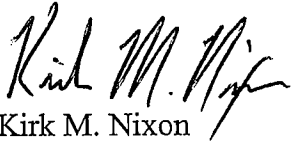
10. If any sensitive geologic features such as, but not limited to, solution openings, caves, sinkholes, or wells are found during the excavation, construction, or blasting, the developer shall notify the Texas Commission on Environmental Quality at (210) 490-3096 and the Resource Protection Division of the San Antonio Water System at (210) 233-3526.

General Recommendations

1. Prior to the release of any building permits the owner/operator of any Category 2 property shall submit an Aquifer Protection Plan to the Resource Protection Division of the San Antonio Water System.
2. Prior to the release of any building permits, the following shall be submitted to the SAWS Aquifer Protection & Evaluation Section of the Resource Protection Division:
 - A. A copy of the Water Pollution Abatement Plan (WPAP) shall be submitted for each particular development/use within the area being considered for re-zoning,
 - B. A set of site specific plans which must have a signed Engineers Seal from Texas,
 - C. A WPAP approval letter from the Texas Commission on Environmental Quality (TCEQ),
 - D. A copy of the approved Water Pollution Abatement Plan.
3. The storage, handling, use and disposal of all over the counter hazardous materials within this development shall be consistent with the labeling of those materials. Failure to comply with the label warnings may constitute a violation of Federal law.
4. If a water quality basin is constructed on the property, the following is required:
 - A. Below grade basins shall not be allowed to be constructed on the site.
 - B. Prior to the start of the basin construction, the owner will notify San Antonio Water System at (210) 233-3526 to schedule a site inspection.

- C. After basin construction is complete and prior to the start of business, the owner will notify the SAWS Aquifer Protection and Evaluation Section at (210) 233-3526 to schedule a site inspection. Additionally, we recommend a maintenance plan and schedule be developed and submitted to San Antonio Water System, Aquifer Protection and Evaluation Section.
 - D. If the basin fails to drain properly, the owner will notify the Construction Section of the Resource Compliance Division at (210) 233-3564 prior to any discharge of water.
 - E. If at any time the ownership of the property changes, the seller must inform the buyer of all requirements for maintenance of the Basin. A signed basin maintenance plan and schedule agreement, from the new owner, must be submitted to the SAWS.
- 5. The City of San Antonio shall inspect all future construction of the sewage collection system to include service laterals and sewer mains for proper construction according to State and City Regulations and Code.
 - 6. The Resource Protection Division staff shall have the authority to inspect the site to ensure that the approved recommendations are being strictly adhered to during and after construction of the project.

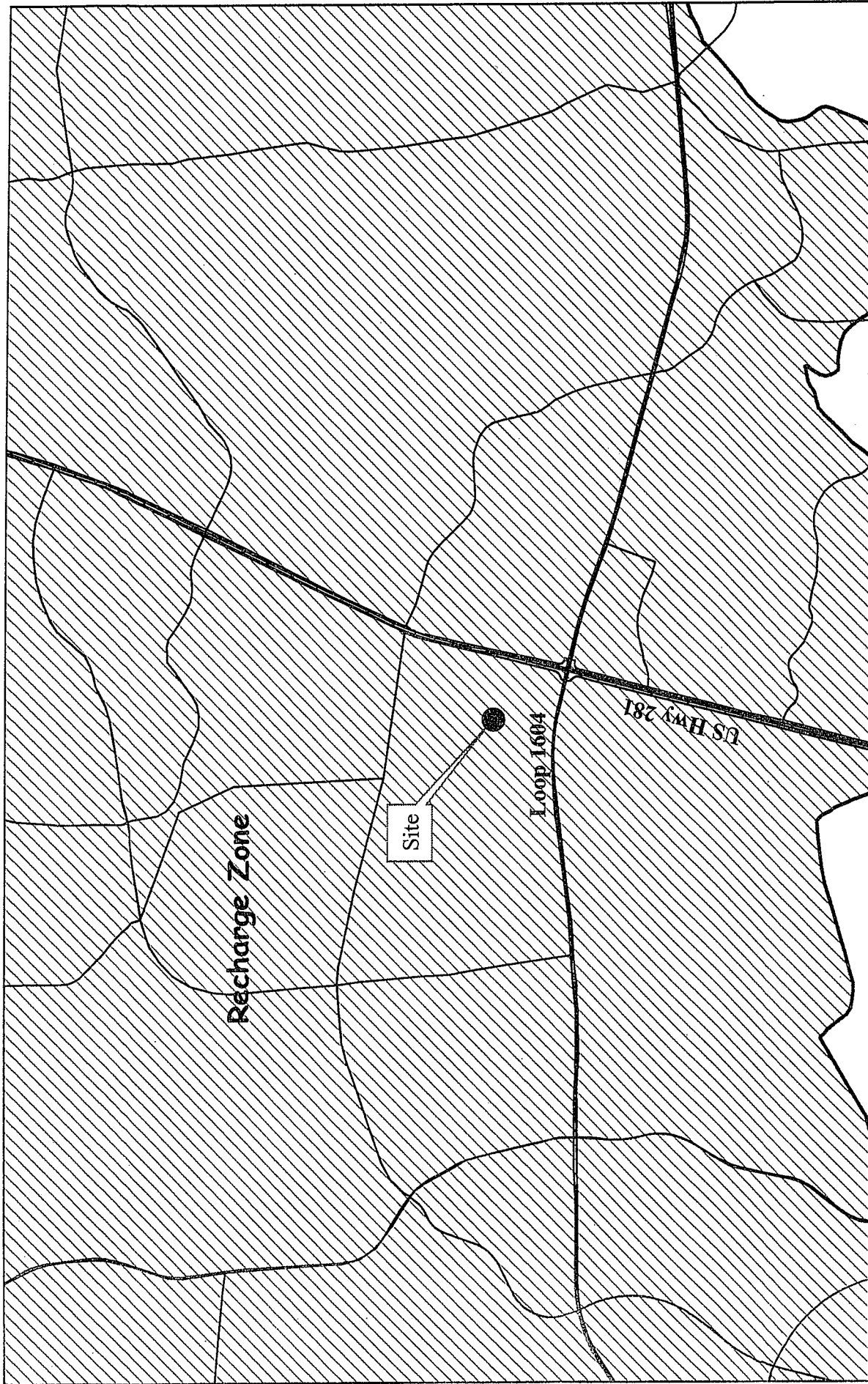
Based on the site evaluation of the property, and the information submitted by the applicant, staff recommends **approval** of the proposed land use. Additionally, SAWS staff recommends that the applicant, or any future owner, comply with the above recommendations in regards to the development of the subject property.


Kirk M. Nixon
Manager
Resource Protection Division

APPROVED:


Scott R. Halty
Director,
Resource Protection & Compliance Department

KMN:MJB



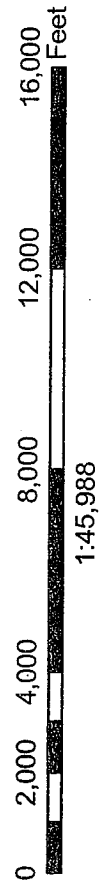
Zoning Case No. Z2009076 Figure 1

Steubing Ranch

Map Page 483 A7

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Map Prepared by Aquifer Protection and Evaluation MJB 5/19/2009





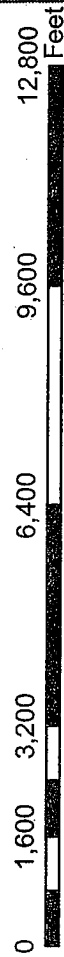
Zoning Case No. Z2009076 Figure 2

Steubing Ranch

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Map Prepared by Aquifer Protection and Evaluation MJB 5/19/2009



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